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## ABSTRACT

The invention provides methods and compositions for use in identifying inhibitors of biochemical pathways important for persistent infection, allowing the identification and/or design of improved therapeutics for treating persistent infections by pathogenic microbes. Particularly disclosed is the importance of the glyoxylate shunt to the persistent phase of various infectious agents, including Mycobacteria, such as *M. tuberculosis*, and the identification of preferred targets for drug development, including the enzymes isocitrate lyase (ICL) and malate synthase. Crystals and three-dimensional structures of *M. tuberculosis* ICL, without ligand and in complex with two inhibitors are also disclosed,

for exemplary use in the design of inhibitors and therapeutic agents.